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## THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants

Hiroshi Murasugi

Serial No.

09/963,257

Filed

September 26, 2001

For

DISTORTION COMPENSATION APPARATUS AND

DISTORTION COMPENSATION METHOD

Group A.U.

2121

I hereby certify that this paper is being deposited this date with the U.S. Postal Service as first class mail addressed to: Commissioner for Patents.

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Date

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January 26, 2005

January 26, 2005 1185 Avenue of the Americas New York, NY 10036 (212) 278-0400

## INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR § 1.97(c)

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Sir:

As a means of complying with the duty of disclosure set forth in 37 CFR § 1.53 and in keeping with the guidelines of 37 CFR 1.98, Applicants hereby submit information thought to be relevant to the examination of the above-identified application, Also submitted herewith is a completed form PTO-

This information was cited in a European Search Report dated December 30, 2004, and it is hereby certified that this disclosure is being made within three months of that date.

United States Patent No. 4,987,378, Eggleston et al., relates to predistortion circuits for compensating amplitude and phase distortion of power amplifiers such as microwave or millimeter wave (radio-frequency) predistortion linearizers or equalizers. The signal splits, passes through plural separated channels in a feedforward manner, and recombines.

United States Patent No. 5,121,077, McGann, relates to circuits for reducing distortion produced by a radio frequency power amplifier such as single side band transmitters.

United States Patent No. 4,329,655, Nonjima et al., relates to an adaptive equalization system of nonlinearities in a pre-distortion nonlinearity compensation system or a post-distortion nonlinearity compensation system.

Compensation of the nonlinearities may be performed automatically.

United States Patent No. 4,985,688, Nagata, relates to a modulation system for use in carrying out linear modulation in a radio communication system for analog or digital signal transmission. Linear modulation may include quadrature amplitude-phase modulation.

European Patent Application EP 1011192 A2, Wessel, et

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al., relates to a high-power linear amplifier using digital pre-distortion. The amplifier is capable of amplifying and combining a number of frequency carrier bearers.

Respectfully submitted,

COOPER & DUNHAM LLP

Jay H. Maioli Reg. No. 27,213

JHM/JBG Encl.

Sheet  $\underline{1}$  of  $\underline{1}$ Form PTO-14 U.S. Department of Atty. Docket No. Serial No. 7217/65460 09/963,257 Commerce Patent and Trademark Office Applicants Hiroshi Murasugi et al. INFORMATION DISCLOSURE CITATION Filing Date Group (Use several sheets if necessary) September 26, 2001 2121 U.S. PATENT DOCUMENTS Date Examiner Document Number Class Subclass Filing Date Name Initial if Appropriate 1/22/91 Eggleston et al. 330 149 US US 6/9/92 McGann 330 149 Nojima et al. US 5/11/82 330 149 8 US 8 6 8 1/15/91 Nagata 332 123 FOREIGN PATENT DOCUMENTS Document Number Date Country Class Subclass Translation Yes No 6/21/00 European H03F 1 EP 0 32 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

**EXAMINER** 

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.